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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/828,837	04/10/2001	Kinya Aota	503.35933VV5	1020
20457	7590	06/16/2004	EXAMINER	
ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-9889			SIMONE, CATHERINE A	
			ART UNIT	PAPER NUMBER
			1772	

DATE MAILED: 06/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/828,837

Applicant(s)

AOTA ET AL.

Examiner

Catherine Simone

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17, 18 and 20-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17, 18 and 20-34 is/are rejected.
- 7) ☒ Claim(s) 35-38 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/5/04 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. **Claims 17, 18, 20, 22-24 and 26-34** are rejected under 35 U.S.C. 102(a) as being anticipated by Aota et al. (EP 0 797 043).

Regarding **claims 24 and 30**, Aota et al. discloses an extruded frame member for use in a friction stir welding, the extruded frame member including at least one plate (Fig. 7, #33 or #34), wherein; the extruded frame member is adapted to be arranged adjacent another extruded frame member so as to be abutted to the another extruded frame member such that the friction stir welding of the extruded frame member and the another extruded frame member can be carried out; at least one end portion of a width of the at

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least one plate of the extruded frame member is provided respectively with a thickened part (Fig. 7, below #37a) which protrudes from a side of the at least one plate of the extruded frame member, in a thickness direction of the at least one plate of the extruded frame member; the extruded frame member further includes an extended part (Fig. 7, #37) extending from the thickened part, substantially in parallel to the at least one plate (Fig. 7, #33 or #34) of the extruded frame member, and extending beyond the at least one end portion of the width of the at least one plate of the extruded frame member, in a direction of the width of the at least one plate of the extruded frame member; the extended part of the extruded frame member is provided continuously and outwardly from the thickened part of the at least one end portion of a width of the at least one plate of the extruded frame member, the extended part being adapted to be subjected to friction stir welding together with at least one plate of the another extruded frame member (see col. 3, lines 11-15); and the extended part of the extruded frame member further is arranged to overlap the at least one plate of the another extruded frame member when the extruded frame member is arranged adjacent the another extruded frame member such that the friction stir welding can be carried out. Regarding **claim 17**, note at least one plate (Fig. 7, #33) of the extruded frame member, the thickened part (Fig. 7, #37a) and the extended part (Fig. 7, #37) are formed integrally as one body. Regarding **claims 18 and 33**, note an outer surface of the thickened part (Fig. 7, #37a) and an outer surface of the extended part (Fig. 7, #37) are coplanar. Regarding **claim 20**, the material of the thickened part (Fig. 7, #37a) and of the extended part (Fig. 7, #37) is inherently adapted to fill up any gaps, between the at least one plate of the extruded frame member and the at least one plate of the another extruded frame member, which exist when the extruded

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frame member abuts another extruded frame member. Regarding **claim 22**, the thickened part (Fig. 7, below #37a) has a width that is substantially equal to a width of the extended part (Fig. 7, #37). Regarding **claim 23**, note a side surface, of the extended part (Fig. 7, #37), furthest from the thickened part, and a side surface of the thickened part (Fig. 7, below #37a), furthest from the extended part, extend obliquely. Regarding **claim 26**, the extended part (Fig. 7, #37) of the extruded frame member is positioned at a side of the at least one end portion of the at least one plate (Fig. 7, #33) of the extruded frame member. Regarding **claims 27 and 31**, note the at least one plate (Fig. 7, #33) has a surface which forms a surface of the extruded frame member, and the extended part (Fig. 7, #37) has a surface extending from the thickened part (Fig. 7, below #37a), the surface of the extended part extending substantially in parallel to the surface of the at least one plate (Fig. 7, #33) which forms a surface of the extruded frame member. Regarding **claims 28 and 32**, the surface of the at least one plate (Fig. 7, #33) which forms a surface of the extruded frame member is a surface exposed after the friction stir welding. Regarding **claims 29 and 34**, the extended part (Fig. 7, #37) extends upward in the thickness direction of the at least one plate to a level above a level of the at least one plate of the extruded frame member.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 21** and **25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Aota et al. (EP 0 797 043).

Aota et al. discloses the claimed invention and a groove (Fig. 8, #45) formed between an outer surface of the thickened part of the extruded frame member and an outer surface of the extended part of the extruded frame member. However, Aota et al. fails to disclose the groove being of triangular shape.

Normally, it is to be expected that a change in shape of the groove would be an unpatentable modification. Under some circumstances, however, changes such as shape may impart patentability to a product if the particular shape claimed produces a new and unexpected result which is different in kind and not merely in degree from the results of the prior art. *In re Dailey et al*, 149 USPQ 47 CCPA 1966.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to change the shape of the groove noted in Aota et al. to a triangular shape. One skilled in the art would have been motivated to do so in order to form an extruded frame member, since it has been held that the change in shape or form of the groove would be an unpatentable modification absence of showing unexpected results.

Regarding **claim 21**, note the thickened part (Fig. 7, below #37a) has a width that is substantially equal to a width of the extended part (Fig. 7, #37).

Allowable Subject Matter

6. Claims 35-38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

7. Applicant's arguments filed 4/5/04 have been fully considered but they are not persuasive. Applicant argues that "Clearly, as can be seen, for example, in Fig. 7 of Aota et al., the projecting piece 38 having raised portion 38a overlaps the projecting piece 37 of the frame member 31, and it is respectfully submitted that this disclosure in Aota et al. would have taught away from the overlap as in the present claims, wherein the extended part overlaps the at least one plate of the another extruded frame member with which the extended part is subjected to friction stir welding." However, it is to be pointed out that the No. Aota et al. reference clearly teaches an extended part (Fig. 7, #37) overlapping at least one plate of another extruded frame member (Fig. 3, #33 and #34). According to the Merriam-Webster's Dictionary, the definition of overlap is "to extend over or past and cover a part of". Element 37 in Figure 7 of the Aota et al. reference does extend past and covers part of the plate (Fig. 7, #33) of the another extruded frame member. Also, in Figure 7 of Aota et al. it can be seen that element 37 (extended part) overlaps plate (Fig. 7, #34) of the another extruded frame member.

Applicant further argues that "As can be seen, for example, in Fig. 7 of Aota et al., the structure represented by reference character 37 extends from vertical plate 36, not raised portion 37a; and accordingly, it is respectfully submitted that the structure as in,

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for example, Fig. 7 of Aota et al. would have taught away from that aspect of the present invention having the extended part extending from the thickened part as in the present invention. That is, it is respectfully submitted that the extruded part extends from the vertical plate 36 in Aota et al., not from the thickened part.” However, it is to be pointed out in the Aota et al. reference that the thickened part is not just the raised portion 37a. It also includes the portion beneath 37a. Therefore, the extended part 37 extends from the thickened part as is presently claimed.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., “the thickened and extended parts provide material to fill in, e.g., gaps between the extruded frame member and the another extruded frame member when positioned for friction stir welding.”) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).


Conclusion

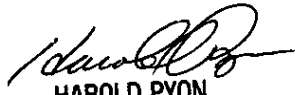
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Catherine Simone whose telephone number is (571)272-1501. The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on (571) 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Catherine Simone
Examiner
Art Unit 1772
June 10, 2004


HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

6/14/04